

## Claims

- [1] A skin resurfacing device comprising
  - a) a skin treater, and
  - b) a vacuum source connected to the skin treater,  
wherein the skin treater comprises a hollow tube having a first end, a second end, an abrasive tip detachably fixed on the first end, a first filter that is provided inside the tube between the first end and the second end, wherein the abrasive tip comprises abrasive particles, and wherein the vacuum source is connected to the second end.
- [2] The skin resurfacing device of claim 1 wherein the abrasive particles of the abrasive tip comprises aluminum oxide crystals, silicon carbide crystals or silicon oxide crystals having a predetermined range of size.
- [3] The skin resurfacing device of claim 2 wherein the predetermined range of the abrasive particles size is from about sixty (60)mm to about one hundred fifty (150)mm.
- [4] The skin resurfacing device of claim 2 wherein the abrasive tip is made by pressure molding and heat treating abrasive particles.
- [5] The skin resurfacing device of claim 2 wherein the abrasive tip has an flat annular portion that contacts the skin of a user, and wherein a suction hole is provided in the annular portion through which air is sucked.
- [6] The skin resurfacing device of claim 2 wherein the abrasive tip is coated with liquid ceramic material.
- [7] The skin resurfacing device of claim 6 wherein the liquid ceramic material is colored with a different color for a different size of abrasive crystals.
- [8] The skin resurfacing device of claim 1 wherein the abrasive tip comprises a roller that protrudes from the flat annular portion so that the roller contacts and rolls on the skin of a user.
- [9] The skin resurfacing device of claim 1 further comprising a skin sensor that measures the oiliness of the skin of a user.
- [10] The skin resurfacing device of claim 9 wherein the intensity of the vacuum provided by the vacuum source is controlled according to the measured oiliness by the skin sensor.
- [11] The skin resurfacing device of claim 10 wherein a user can adjust the intensity of the vacuum.

- [12] The skin resurfacing device of claim 1 further comprising a timer that controls operation time of the device.
- [13] The skin resurfacing device of claim 1 wherein the tube has a transparent portion so that the filter is visible outside.
- [14] The skin resurfacing device of claim 1 further comprising a second filter between the skin treater and the vacuum source.
- [15] The skin resurfacing device of claim 14 wherein the second filter comprises a container that comprises an open end, a lid that plugs the open end, an inlet pipe passing through the lid, an outlet pipe passing through the lid, a filter element that is fixed to the outlet pipe, wherein the container is detachable from the lid.
- [16] The skin resurfacing device of claim 1 wherein the abrasive tip comprises a generally cylindrical housing having an open end and a closed end, an abrasive member having a first surface and a second surface, and a rod member extending from the second surface of the abrasive member, wherein the abrasive member is mounted to the housing by inserting the rod member into a center hole formed in the closed end of the housing so that the first surface of the abrasive tip is exposed through the open end of the housing.